ORDER NO. MD0512448C1
A6

Service Manual

Speaker System

SB-AK640P

Colour
(S)... Silver Type

SPECIFICATIONS

Specification

Type	**3 way, 3 speaker system (Bass reflex)**
Speaker(s)	
Woofer	**16 cm (6-1/2”) cone type**
Tweeter	**6 cm (2-3/8”) cone type**
Super tweeter	**Piezo type**
Impedance	
High	**3**
Low	**3**
Input power (IEC)	
High	**105 W (Max)**
Low	**105 W (Max)**
Output sound pressure level	**83 dB/W (1.0 m)**
Cross over frequency	**2 kHz, 10 kHz**
Frequency range	**37 Hz to 23 kHz (-16 dB)**
	44 Hz to 22 kHz (-10 dB)
Dimensions (W x H x D)	
	247 x 330 x 221 mm
	(9-23/32” x 13” x 8-11/16”)
Mass	**3.0 kg (6.6 lb.)**

Notes :

1. Specifications are subject to change without notice.
Mass and dimensions are approximate.

2. Total harmonic distortion is measured by the digital spectrum analyzer.

3. The labels “HIGH” and “LOW” on the rear of the speakers refer to High frequency and Low frequency.

■ **System : SC-AK640P-S**	**Music Center : SA-AK640P-S**
	Front Speaker : SB-AK640P-S
	Subwoofer : SB-WAK640P-S
System : SC-AK640PC-S	**Music Center : SA-AK640PC-S**
	Front Speaker : SB-AK640P-S
	Front Speaker : SB-WAK640P-S

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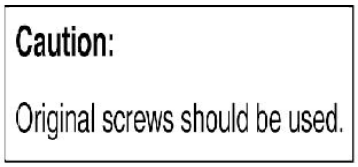
1. Assembling and Disassembling

“ATTENTION SERVICER”
Some chassis components may have sharp edges. Be careful when disassembling and servicing.

1. **This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.**
2. **For reassembly after operation checks or replacement, reverse the respective procedures.**
   Special reassembly procedures are described only when required.
3. **Select items from the following index when checks or replacement are required.**
4. **Refer to the Parts No. on the page of “Parts Location and Replacement Parts List” (Section 5), if necessary.**

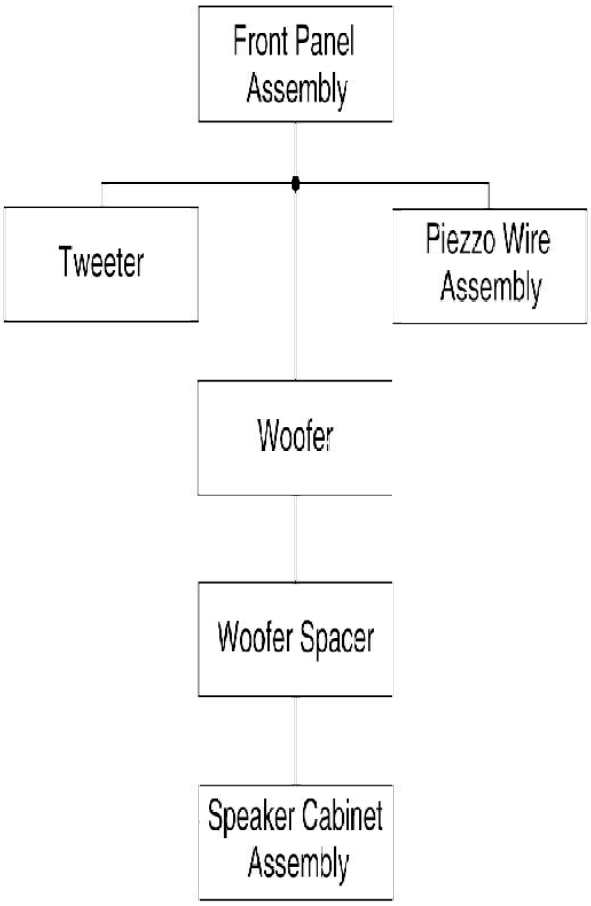


Below is the list of disassembly sections

- **Disassembly of Front Panel Assembly**
- **Disassembly of Tweeter**
- **Disassembly of Piezzo Wire Assembly**
- **Disassembly of Woofer**
- **Disassembly of Woofer Spacer**
- **Disassembly of Speaker Cabinet Assembly**

1.1. Disassembly flow chart

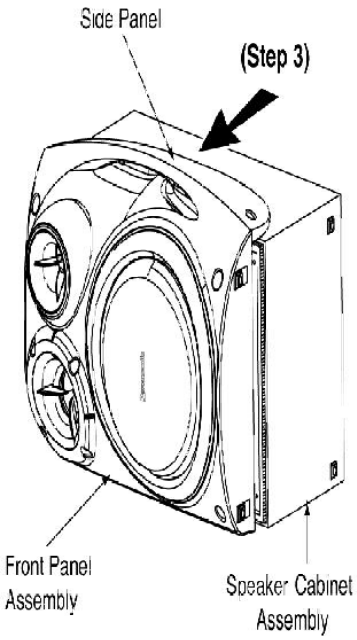
The following chart is the procedure for disassembling the casing and inside parts for internal inspection when carrying out the servicing.
To assemble the unit, reverse the steps shown in the chart as below.



1.2. Disassembly of Front Panel Assembly

Note: The disassembly process illustration below is for the right speaker only.

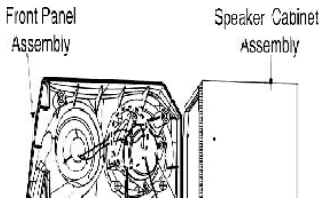
Step 1: Remove 4 screws from Front Panel Assembly.
Step 2: Remove 4 screws from Side Panel.



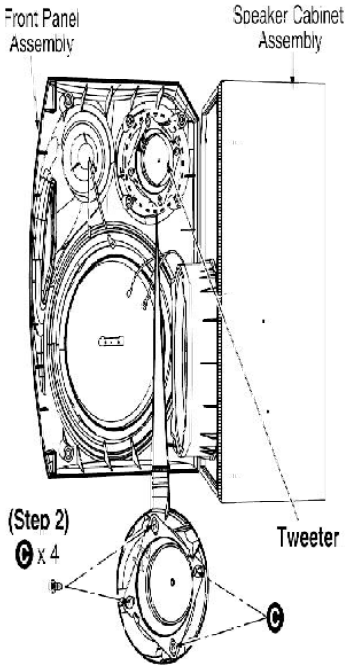
Step 3: Secure the Speaker Cabinet Assembly firmly, then remove the Front Panel Assembly with Side Panel from the Speaker Cabinet Assembly as shown in the picture.

1.3. Disassembly of Tweeter

Follow (step 1) to (step 3) in item 1.2.



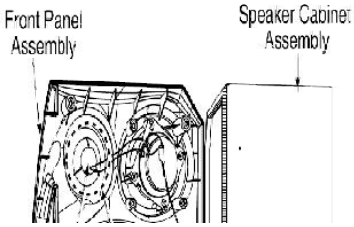
Step 1: Detach the (+) black/red, (-) blue/black wires from Tweeter.



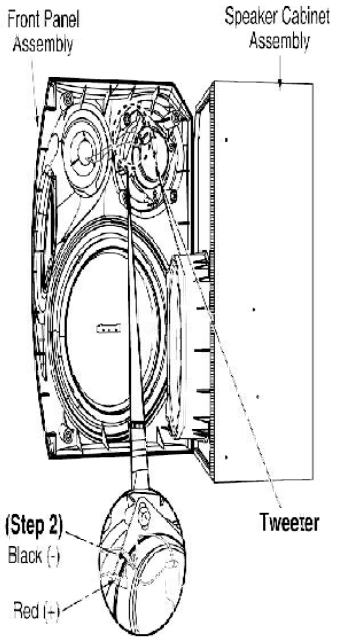
Step 2: Remove 4 screws from Tweeter.

1.4. Disassembly of Piezzo Wire Assembly

Follow (step 1) to (step 3) in item 1.2.



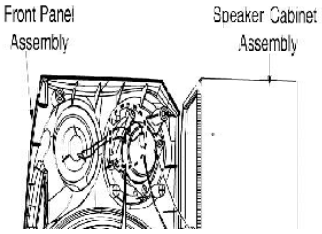
Step 1: Remove the glue from Piezzo Wire Assembly.



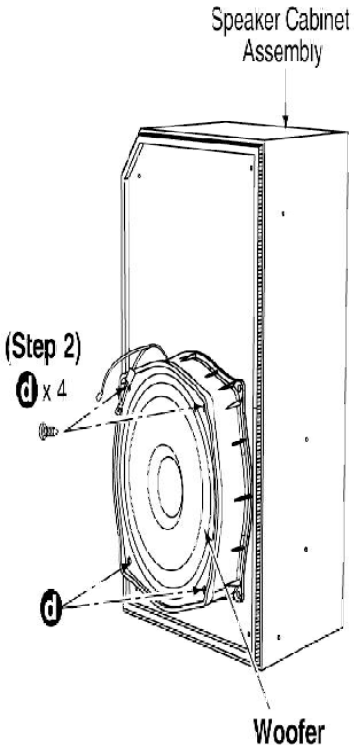
Step 2: Detach the (+) red and (-) black wires from Tweeter.

1.5. Disassembly of Woofer

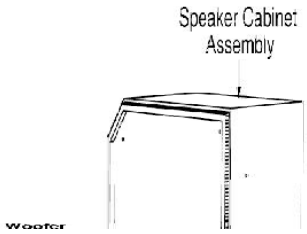
Follow (step 1) to (step 3) in item 1.2.



Step 1: Detach the (+) black and (-) blue wires from Tweeter.



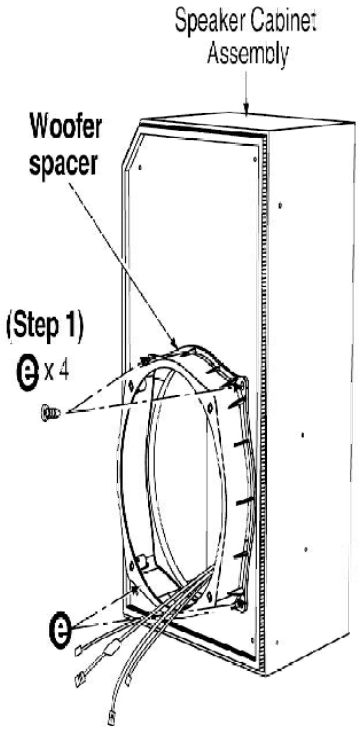
Step 2: Remove 4 screws from Woofer.



Step 3: Detach the (+) red and (-) black wires from Woofer.

1.6. Disassembly of Woofer Spacer

Follow (step 1) to (step 3) in item 1.2.
Follow (step 1) to (step 3) in item 1.5.



Step 1: Remove 4 screws from Woofer Spacer.

1.7. Disassembly of Speaker Cabinet Assembly

Follow (step 1) to (step 3) in item 1.2.
Follow (step 1) to (step 3) in item 1.5.
Follow (step 1) in item 1.6.

2. Connection of the Speaker Cables

- Be sure to connect speaker cables before connecting the AC power supply cord.
- The load impedance of any speaker used with this unit must be 3 .
- Be sure to connect the cable from the right speaker to the right terminal

and the cable from the left speaker to the left terminal.

1. Twist and pull off the vinyl tip of the speaker cords. If the speaker cords do not have vinyl tips, connect them directly to the terminals. Make sure the bare ends of the wires are not unravelled.

2. Insert the wire to the rear panel of the unit and close the lever.

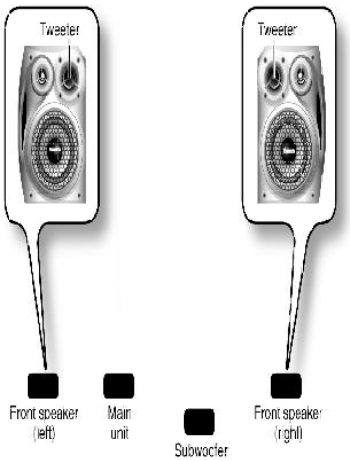
Notes :

- To prevent damage to circuitry, never short-circuit positive (+) and negative (-) speaker wires.

- Be sure to connect only positive (red/gray) wires to positive (+) terminals and negative (black/blue) wires to negative (-) terminals.

Placement

Place the front speakers so that the tweeter is on the inside.

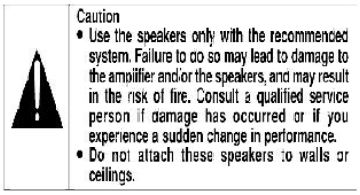


You cannot take the front net off the speakers.

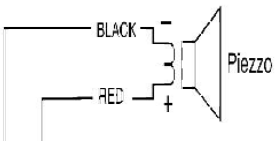
Connection

Use only the supplied speakers
The combination of the main unit and speakers provide the best sound. Using other speakers can damage the unit and sound quality will be negatively affected.
Note

- **Keep your speakers at least 10 mm (13/32”) away from the system for proper ventilation.**
- **These speakers do not have magnetic shielding. Do not place them near televisions, personal computers or other devices easily influenced by magnetism.**
- **You can damage your speakers and shorten their useful life if you play sound at high levels over extended periods.**
- **Reduce the volume in the following cases to avoid damage.**
- **When playing distorted sound.**
- **When adjusting the sound quality.**

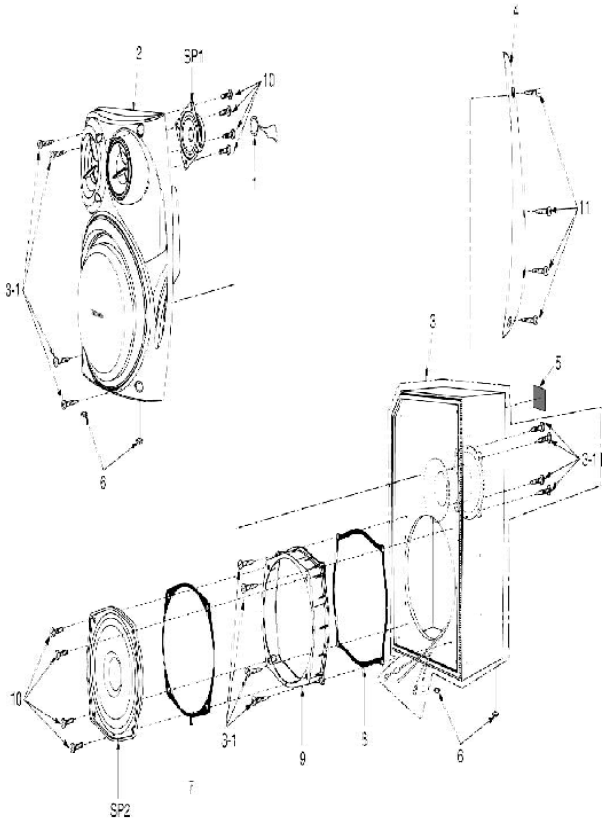

Caution
• Use the speakers only with the recommended system. Failure to do so may lead to damage to the amplifier and/or the speakers, and may result in the risk of fire. Consult a qualified service person if damage has occurred or if you experience a sudden change in performance.
• Do not attach these speakers to walls or ceilings.

3. Connection of the Wiring Diagram

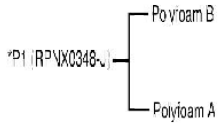


4. Exploded view

4.1. Cabinet Parts Location



4.2. Packaging



5. Replacement Parts List

Notes :

- Important safety notice :

When replacing any of these components, be sure to use only manufacturer's specified parts shown in the parts list.

- [M] markings in the Remarks columns indicates parts supplied by PAVCSG.

Ref. No.	Part No.	Part Name & Description	Remarks
		CABINET AND CHASSIS	
1	REEX0512	PIEZZO WIRE ASS'Y	[M]
2	RYBX0123-SJ	FRONT PANEL ASS'Y L	[M]
2	RYBX0124-SJ	FRONT PANEL ASS'Y R	[M]
3	RYKX0311-SJ	SPEAKER CAB ASS'Y L	[M]
3	RYKX0312-SJ	SPEAKER CAB ASS'Y R	[M]
3-1	XTB4+16AFJK	SCREW	[M]
4	RGPX0214-SJ	SIDE PANEL (L)	[M]
4	RGPX0215-SJ	SIDE PANEL (R)	[M]
5	RGNX0321-K	SPEC SHEET	[M]
6	RKA0072-KJ	LEG CUSHION	[M]
7	RMQX0163-K	W/SPACER E/P (TOP)	[M]
8	RMQX0164-K	W/SPACER E/P (BTM)	[M]
9	RMRX0067-KJ	WOOFER SPACER	[M]
10	XTB4+10GFJK	SCREW	[M]
11	XTB4+16AFN	SCREW	[M]
		CAPACITOR	
C1	ECA1HAY4R7S	4.7uf 50V	[M]
		PACKING MATERIALS	
P1	RPNX0348-J	POLYFOAM SET	[M]
P2	RPFX0108-2	MIRAMAT BAG	[M]
		SPEAKERS	
SP1	L0AA06A00037	TWEETER	[M]
SP2	L0AA16A00022	WOOFER	[M]

FLE0512W/S